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DESCRIPTORS: *Steel, *Austenite, Hardening,
Chromium alloys, Nickel alloys, Mechanical
properties, *Metallography, Microstructure, *Cold-
working, Annealing, Phase studies.

A method showing that the surface phase α and the α
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the transformation $\gamma \rightarrow \alpha$ is confirmed. The in-
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176585

Office of Technical Services

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DESCRIPTORS: Electron microcopy, Electrolytic
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Contribution to the Study of the Diffusion of Hydrogen
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DESCRIPTORS: *Nickel alloys, *Aluminum alloys,
Microstructure, Hardening, Phase transitions, Chemi-
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Crystal growth, Recrystallization.

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uous growth was never observed, but always contin-
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evolution of a foreign phase in a solid solution by pre-
cipitation followed by coalescence had been shown to be
a very efficacious method, except for a few exceptions
of making discontinuous growth appear and develop.
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DESCRIPTORS: *Uranium alloys, *Molybdenum alloys,
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(Metallurgy, TT. v. 6, no. 1)

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pp 1-10.

ABC Tr-4760

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of the Hydrogen Content in Iron, by R. W. Lee.
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Influence of the Anisotropy of Steel Plates on the
Plastic Deformation in Single and Biaxial Working,
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on the Proportion of Eutectic in Binary Alloys,
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Influence of Thermal Treatments on Uranium
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May 1961, pp 343-349.
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Sci. - Engg.

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Surface Tension of Liquid Iron and Its Alloys.
Part I, by P. Kozakevitch, G. Urbain.

FRENCH, par, Revue Metallurgie Memoires
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Mar 62

list 125

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62-10451

Gabrovsek, M., Plateau, J. and others.
SOME TESTS CONCERNING THE ROLE OF TIN IN
STEELS. II. INFLUENCE OF TIN ON THE LOW
TEMPERATURE MECHANICAL PROPERTIES (In-
fluence de l'Étain sur les Propriétés Mécaniques à
Froid du Fer et des Aciers). Dec 61 [20]p. (foreign
text included) 9 refn.
Order from SLA \$1.60

62-10451

Trans. of Revue de Metallurgie. Memoires
Scientifiques (France) 1961, v. 58, no. 6, p. 440-448.

DESCRIPTORS: *Tin, *Steel, Heat treatment,
Mechanical properties, Iron alloys, Carbon alloys,
Tin alloys, Aluminum alloys.

In the majority of the cases the presence of tin in steel
causes a decrease of ductility, which increases when
the tin content is raised, and which depends on the heat
treatment. This decrease of ductility is always as-
(Metallurgy, TT, v. 7, no. 9) (over)

I. Gabrovsek, M.
II. Plateau, J.
III. Title: Influence...

Office of Technical Services

Direct Determination of Sulphur, Phosphorus,
Carbon, and Silicon in Steel, by Means of Emission
by J. Romand, C. Bachet, R. Berneron.

FRENCH, M per, Memoires (Les) Scientifiques
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BISI 2602

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Study of Phosphating Films With X-Rays and
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Sci - Phys

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Guillot-Micard, J. and Caisso, J.
LUDERS' BANDS AND PORTEVIN-LE CHATELIER
PHENOMENON. [1961] [21]p. 12 refs.
Order from SLA \$2.60 62-10304

Trans. of Revue de Métallurgie. Mémoires
Scientifiques (France) 1961, v. 58, no. 7, p.
p. 510-516.

DESCRIPTORS: *Plasticity, *Deformation, Atomic
structure, Solids, Solutions, Alloys, Impurities,
Dislocations, Metals, Aging, Temperature,
Stresses, Relaxation time.

The time required for atoms of impurities to block
the dislocations of a solid solution can be calculated.
This time varies greatly from one alloy to another,
and this variation explains that of the phenomena
(Physics - Solid State, TT, v. 7, no. 9) (over)

62-10304

1. Title: Luders' bands
2. Title: Portevin - Le
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1. Guillot-Micard, J.
- II. Caisso, J.

Office of Technical Services

Surface Tension of Molten Iron and Its Alloys,
Part II, by P. Kozakevitch, G. Urbain.

FRENCH, par, Memoires (Les) Scientifiques de la
Revue de Metallurgie, Vol LVIII, Jol 1961,
pp 517-534.

BISI 2609

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Study of Some Phenomena Relating to the
Precipitation of Carbides in Ni/Cr Austenitic
Steels, by J. Philibert, G. Henry, M. Robert,
et al.

FRENCH, per, Memoires (Les) Scientifiques de la
Revue Metallurgie, Vol LVIII, Aug 1961, pp 557-573.

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Contribution to the Study of Oxidation of
Magnetite in Air at Elevated Temperatures, by
J. Paidassi, J. Lopez.

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Sep 1961, pp 677-698.

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Sci - m/m

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of the Metal After Cold Work. Influence of the Purity,
by L. Renucci, J. P. Langeron, P. Lehr, 26 pp.

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ABC HW 7x-37

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BISI 2995

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Contribution to the Study of the Effect of Nickel
(up to 9%) on the Mechanical Properties of Steels
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A. Clerc, et al.

FRENCH, per, Memoires (Les) Scientifiques de la
Revue Metallurgie, Vol LVIII, Dec 1961, pp 901-914.

BISI 2690

Sci - m/m

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RESEARCH INTO THE USE OF GERMANIUM IN THE
FABRICATION OF MAGNETIC SHEET, BY C. DECROLY,
V. RIXHON.

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REVUE METALLURGIE, VOL LVIII, NO 12, 1961,
PP 915-926.

BISI 2786

SCI - MIN/ METALS

AUG 11/
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